



## Sterisart® NF – 16476

System with Short Dual-Needle Metal Spike



International pharmacopeias require the complete sterility of pharmaceutical products that are injected into the bloodstream or that otherwise enter the body below the skin surface. Manufacturers of such products are required to supply proof of the sterility of the final product batch.

The preferred method for sterility testing is the membrane filter method – any microorganism present is concentrated on the membrane filter surfaces in the sample containers. In the final step nutrient media are added to these containers and the containers are incubated under the conditions specified.

The Sterisart® NF system 16476 has been specifically designed for sterility testing of closed, unvented sample containers. The only 2.4 cm long double-metal needle considerably reduces the dead volume, which necessarily remains in the sample container during sample taking. The resulting sample is pumped in equal volumes into the two Sterisart® containers and filtered. In the last step the culture media described by the pharmacopeias are pumped into these containers. The containers are subsequently incubated for two weeks, then evaluated.

Unlike plastic needles, metal needles do not snap off when tilted under pressure. This benefit together with the large protective plate on the spike not only facilitates to pierce stoppers. The plate construction also helps to prevent injury to fingers by ruling out breakage or slippage.

The Sterisart® NF type 16476 is available as special isolator version with the model suffix "gamma," which is indicated by the last letters of the order number: GBD.

Ideally the systems are used in combination with the Sterisart® Universal pumps 16419 oder 16420. These can be used in clean rooms and clean benches or can be installed in isolators.

Sterisart® NF systems can also be used with other manufacturers' pumps which have been specially designed for disposable closed sterility testing systems. This requires an adapter to ensure the correct positioning of Sartorius NF units in the pumps of other manufacturers: 16412V (for older pumps) or 1ZG---0014 (for the latest pump versions).

### Specifications

Pore size of the Sartochem® membrane filter	0.45 µm, tested with <i>Serratia marcescens</i>
Filter area	15.7 cm <sup>2</sup> in each Sterisart® container
Flow rate (for water)	500 ml/min at 1 bar (approx. 15 psi)
Pore size of the air filters	0.2 µm PTFE, validated acc. to HIMA for the retention of <i>B. diminuta</i>
Sample container capacity	120 ml (graduation marks at 50, 75 and 100 ml)
Max. operating pressure	3 bar (approx. 44 psi) at 20 °C
Max. operating temperature	50 °C
Sterilization	Gamma irradiation

## Chemical compatibility of the components (24 hour contact at 20 °C)

	Sartochem® membrane	Tubing	Sterisart® containers
Aqueous solutions	compatible	compatible	compatible
Alcohols	compatible	compatible	compatible
Aliphatic hydrocarbons	compatible	compatible	compatible
Oils	compatible	compatible	compatible
Salt solutions	compatible	compatible	compatible
Ether	compatible	compatible	compatible
Weak acids	compatible	compatible	limited compatibility
Weak bases	limited compatibility	compatible	limited compatibility
Aromatic hydrocarbons	compatible	not compatible	not compatible
Esters	compatible	not compatible	limited compatibility
Halogenated hydrocarbons	compatible	not compatible	not compatible

## Ordering information

Name	Description	Quantity	Order number
Sterisart® NF gamma	System with short double-needle metal spike for closed (unvented) sample containers (gamma sterilized, double-packed, optimal for use in isolators)	Box of 10	16476 GBD
Sterisart® NF gamma Septum	System with short double-needle metal spike for closed (unvented) sample containers and with septum (gamma sterilized, double-packed)	Box of 10	16476 GSD
Sterisart® Universal pump	Basic version: Peristaltic pump for use with sample containers in sterility testing	1	16419
Sterisart® Universal pump	Upgraded version with display   user software	1	16420
Pump adapters	For use with Sterisart® systems in older competitor pumps. Please clarify pump type used	2	16412 V
Pump adapters	For use with Sterisart® systems in newer competitor pumps. Please clarify pump type used.	1	1ZG---0014

Further Sterisart® units and accessories are available on request.

Comprehensive validation support literature is available on request.

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